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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,276	04/18/2008	Christof Sonderegger	KIZ-223-PCT-US	4257
22827	7590	04/13/2010	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			JONES, JAMES	
			ART UNIT	PAPER NUMBER
			2873	
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			04/13/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,276	<b>Applicant(s)</b> SONDEREGGER ET AL.	
	<b>Examiner</b> JAMES C. JONES	<b>Art Unit</b> 2873	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17, 21, 25 and 27 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 is/are allowed.
- 6) ☒ Claim(s) 14, 15, 21 and 27 is/are rejected.
- 7) ☒ Claim(s) 16, 17 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/18/2006</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 7/18/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Specification***

2. The abstract of the disclosure is objected to because the abstract contains word "(Fig. 1)" located on the right side of the page towards the middle of the page. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 14, 15, 21 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Phillip et al. (20020134138) hereafter Phillip.

Regarding claim 14 Phillip discloses a method for the centering of one or more lenses (2) and a waveguide (3) in a sheath of an optical sensor (abstract, line 1) for the monitoring of combustion processes in a combustion chamber (abstract, lines 1-3) wherein the gap between the outer radius of the lenses (2) and the inner radius of the sheath (4) is less than 10  $\mu\text{m}$ , preferably and that the gap is filled with a soldering paste

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(5) and that the deviation of the axial orientation of the waveguide (3) and the lens system is less than 10  $\mu\text{m}$  (fig. 5).

Regarding claim 15, Phillip the method according to claim 14 wherein a deep-drawn seath (4) is used (fig. 5).

Regarding claim 21, Phillip discloses the method according to claim 14, wherein the plan-concave lens (2) is fixed to the sheath (4) by means of a soldering material (5).

Regarding claim 27, Phillip discloses the method according to claim 14, wherein at least the lens (2) facing the combustion chamber is fixed by means of a soldering material (5) to the sheath (4) in the area of the gap (fig. 5)

***Allowable Subject Matter***

5. Claims 1-13 are allowed.

6. Claims 16, 17 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. Specifically, in reference to independent claim 1 (and its dependents), none of the prior art either alone or in combination disclose or teach of the claimed optical sensor specifically including as the distinguishing features in combination with the other limitations the claimed " a sheath surrounding the lens system and one end of the waveguide, wherein the lens system comprises at least one essentially piano-concave

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lens and a double concave lens wherein the planar face of the piano-concave lens is exposed to the combustion chamber”.

Regarding claim 16, none of the prior art either alone or in combination disclose or teach of the claimed method for the centering of one or more lenses specifically including as the distinguishing features in combination with the other limitations the claimed “wherein the sensor comprises a lens system having at least two lenses”.

Regarding claim 17 (and its dependent), none of the prior art either alone or in combination disclose or teach of the claimed method for the centering of one or more lenses specifically including as the distinguishing features in combination with the other limitations the claimed “a waveguide (5) and a sheath (4) surrounding the lens system and one end of the waveguide wherein the lens system (1,2) comprises at least one essentially piano- concave lens (1) and a double concave lens (2) and wherein the planar face of the piano-concave lens (1) is exposed to the combustion chamber”.

### ***Conclusion***

Caldwell et al. (6713713) is being cited herein to show a reference that discloses some similar features to that of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES C. JONES whose telephone number is (571)270-1278. The examiner can normally be reached on Monday thru Friday, 8 a.m. to 5 p.m. est. time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James C. Jones/  
Examiner, Art Unit 2873  
4/9/2010

/Jordan M. Schwartz/  
Primary Examiner, Art Unit 2873